

REMARKS

Claims 1-19 currently remain in the application. Claims 1 and 5 are herein amended. Allowance of claims 3, 4, 11-14 and 18 is gratefully acknowledged.

Claims 1, 2, 5-10, 15 and 16 were rejected under 35 U.S.C. 103 over Heide in view of Kulha. At least in part in view of the reasons for rejection by the Examiner, independent claims 1 and 5 are herein amended to more clearly define the sampling timings. The amendments herein effected are believed to obviate the Examiner's rejection for the following reasons.

One of the main points of the present invention is that detections are made over a plurality of detection areas by means of a single device and these detection areas are freely specifiable. Prior art detectors, inclusive of those described in the cited references, are adapted to detect a delay time for reception of reflected signal and to calculate the distance to the reflector from this delay time.


The basic idea of the present invention is different. According to this invention, detection areas are determined first and determinations are made whether target objects are detected in these specified detection areas. The user does not care whether the target object exists or not elsewhere. Thus, the sampling timings are set according to these selected detection areas by means of delay circuits.

According to the cited references, as briefly explained above, the delay time of reflected waves is measured and the distance to the reflecting object is calculated, and a plurality of sensors are set at different positions to make detections in different areas. According to the present invention, a plurality of sampling times are used but there is no need to provide more than one wave transmitting means. Claims 1 and 5 now describe that the sampling timings are set by delay circuits so as to incorporate delays that are determined according to the distances to the detection areas to be specified. These are concepts alien to the cited references relied upon by the Examiner.

Claims 17 and 19 were objected but they are both dependent claims. With the amendment to the independent claims effected herein, it is believed that claims 17 and 19 are now also allowable.

In summary, it is believed that the present Amendment is totally responsive to the Office Action and hence that the application is now in condition for allowance.

Respectfully submitted,


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